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The role of practical assessment in the delivery of successful enterprise education

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Education + Training



**“The role of practical assessment in the delivery of
successful enterprise education”.**

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“The role of practical assessment in the delivery of successful enterprise education”.

Introduction

Enterprise education is well researched however there is a gap in the area of enterprise assessment which is under researched and not well understood (Pittaway and Cope, 2007). This is investigated in a review of entrepreneurship education literature and a qualitative case study conducted on a sample of 10 enterprise educators at the University of the West of Scotland. Data was analysed using thematic analysis. This research contributes to the existing knowledge base within enterprise education and adds to the debate surrounding the relevance and effectiveness of the current approach to assessment. The academic focus concentrates on developing an understanding of how assessment is used to support the aims of enterprise education. This leads to recommendations for improvements to the current approach to the assessment of enterprise with practical examples.

The key conclusion from the study is that paradoxically the traditional enterprise education paradigm is actually harming that which it is attempting to foster and nurture; entrepreneurial thinking and activity (Kirby, 2004). The rationalised approach to education and assessment is at odds with the aims of the enterprise educator and there is evidence of a visible and growing disconnect between academia (the theory) and industry (the practice). The challenge for the enterprise educator is to bridge this gap whilst ensuring the aims of the student, the institution and the employer are satisfied. For students to develop enterprising attitudes, aptitudes and behaviours what is needed are flexible assessment tools which are rooted in industry, relevant to the marketplace, maintain academic rigour and which the student has personal involvement in constructing themselves.

Context setting/identifying the problem

Universities have been recognised as having a key role to play in the development of entrepreneurs who can add value to the market (Neck and Greene, 2011) and assessment is a core pillar of any effective teaching and learning strategy. However tried and tested enterprise assessment mechanisms such as business plans are not delivering a good quality of entrepreneurial learning (Matlay, 2011). This project provides the opportunity to investigate this problem to gain insight into the associated challenges in order to provide recommendations which are capable of contributing to improvement within this field.

Background

Currently the largest modern university in Scotland the University of the West of Scotland (UWS) achieved university status in 1992. UWS provides a broad range of undergraduate and postgraduate programmes over 4 Scottish campuses at Paisley, Dumfries, Ayr and Lanarkshire. The institution delivers a range of enterprise modules which fall within the remit of the School of Business and Enterprise. Enterprise activity is embedded within all Business School programmes. Core and elective enterprise modules run at various levels.

Value

This work has resonance and relevance for enterprise educators who are concerned with the delivery and assessment of entrepreneurial learning in a university Business School setting. The study will also be of interest to decision makers within this sector concerned with ensuring academic practice remains aligned to policy and the needs of industry. By developing assessment instruments which are relevant, meaningful and flexible enterprise educators can make an impact on student satisfaction and engagement levels within Modules and Programmes. This approach will also ensure close alignment with the guiding principles of the seminal QAA Framework for developing entrepreneurial effectiveness which will be expanded upon further in this paper.

Aim and objectives

The aim of this project is to provide a detailed examination of how a particular staff cohort believes that assessment might influence the practice and quality of teaching and learning within their own Business School.

The research objectives of this study are as follows;

- 1) To critically appraise and evaluate the academic literature relating to the assessment of enterprise within Higher Education.
- 2) To investigate and explore the views of a team of enterprise educators to determine what they consider to be the key factors in the assessment of enterprise education.
- 3) To identify recommendations for an approach to assessment for the enterprise educator which effectively supports and evaluates the entrepreneurial development of students.

Key terms

In the interests of clarity the following definitions have been provided;

Entrepreneurship Education: “Entrepreneurship Education is defined as the application of enterprise behaviours, attributes and competencies into the creation of cultural, social or economic value. This can, but does not exclusively, lead to venture creation. Entrepreneurship is the process of doing something new and something different for the purpose of creating wealth for the individual and adding value to society”, (QAA, 2018).

Enterprise education: “Enterprise Education is the process of developing students in a manner that provides them with an enhanced capacity to generate ideas, and the behaviours, attributes, and competencies to make them happen. It extends beyond knowledge acquisition to a wide range of emotional, intellectual, social, cultural and practical behaviours, attributes and competences, and is appropriate to all students”, (QAA, 2018).

Entrepreneurial learning: Entrepreneurial learning is higher-level learning that is fundamental to the entrepreneur in both personal and business terms (Cope, 2003).

Intrapreneurship: Intrapreneurship is entrepreneurship within an existing organisation (Antoncic and Hisrich, 2001).

Literature review

Enterprise educators must understand how enterprising people learn and they must be innovative with assessment since the aims of educational activity differ from traditional education (Pittaway and Cope, 2007). In order to explore these issues and investigate the role of practical assessment in the delivery of successful enterprise education the literature review focussed on two key themes;

- 1) *The aims of enterprise education*
- 2) *The form and role of assessment within enterprise education*

The aim of enterprise education

Whilst enterprise is traditionally viewed as the process of launching a new small or medium-sized business (Bridge *et al.*, 2010) the aim of enterprise education should be to develop graduates' entrepreneurial skills to enable them to spot and act on opportunities (QAA, 2018).

The idea of enterprise education is not a new concept and whilst at times it is viewed as a non-business field (Hannon, 2006), academic entrepreneurship is nevertheless a thriving market (Meyer, 2011). There is however a clear bias in university Business Schools towards promoting business venturing (Neck and Greene, 2011; Fayolle *et al.*, 2006) and this may not always be in line with the requirements of industry (Muff, 2012).

The need therefore for universities to introduce a cohesive strategy towards more meaningful entrepreneurial learning has never been greater (All-Party Parliamentary Group for Micro Businesses, 2014). However caution is needed to ensure that enterprise education does not lose its relevance when driven by academic process (Henry, 2013) and institutional agendas (Giacalone, 2004). Factors such as the need to align with institutional strategy, changes in policy and funding limitations can influence the direction and impact of enterprise education (Pittaway and Hannon, 2008).

Furthermore universities do not operate in isolation and have a symbiotic relationship with industry and government which also shapes how they deliver education (Etzkowitz, 2003). In recognition of this there is now a concerted drive by educators and policy makers towards developing entrepreneurial graduates with the skills and attributes valued by employers (Herrmann *et al.*, 2008).

To this end teaching philosophies should be shaped by research within specific disciplines and also by the expectations of all stakeholders (Schönwetter *et al.*, 2002). Aligning academic milestones with industry expectations however creates problems for universities and challenges are noted around measuring student progression through assessment (Draycott *et al.*, 2011) whilst still ensuring that the learning process remains accessible (Lechner, 2001).

These challenges can be addressed through an experiential approach to entrepreneurial learning (Chang and Rieple, 2013) which supports trial and error and student centred learning (Brush, 2012; Ehiyazaryan and Barraclough, 2009). In line with this philosophy Rae (2004) describes the Triadic Model of Entrepreneurial Learning highlighting three major themes impacting on participants' learning. These themes; personal and social emergence, the negotiated enterprise, and contextual learning are critical to the entrepreneurial learning experience. The Triadic Model expands on these 3 themes to provide a holistic framework for entrepreneurial learning (Innerhofer *et al.*, 2017). This model supports the view that the key aim of enterprise education

is to develop graduates who are able to recognise opportunity and act on it through measured risk taking (Shane, 2003). To this end any assessment framework which claims to support enterprise education must be grounded in the principles of the Triadic Model of Entrepreneurial Learning. Such entrepreneurial learning however should not take place exclusively within the classroom and there are clear benefits from engaging with contextual learning opportunities offered by “extra-curricular” networks, (QAA, 2018).

Entrepreneurial success is ultimately impacted by effective learning (Man, 2012; Fayolle, 2000) and enterprise teaching should focus on encouraging successful enterprising behaviours in two separate graduate streams (Cabrera, 2003) namely;

- 1) The entrepreneur
- 2) The intrapreneur

The teaching of intrapreneurship is of equal if not greater importance to the student than entrepreneurship. However intrapreneurship, often referred to as corporate entrepreneurship, can be especially difficult to measure and assess (Antoncic and Hisrich, 2003).

Academic institutions need to recognise that whilst teaching basic business management skills is important there is also a duty to prepare the student personally and socially for the employment market (Westhead and Matlay, 2006). To do this the entrepreneurial development of students should focus on 4 key areas namely; enterprise awareness, entrepreneurial mindset, entrepreneurial capability, and entrepreneurial effectiveness (QAA, 2018).

Adopting this approach will help students develop their attitudes and abilities especially when this is combined with activities which are immersed in industry (Rae, 2004). The extent to which this is effective will however be determined by the quality and relevance of the teaching material and how it is delivered (Prince and Felder, 2006).

The form and role of assessment within enterprise education

According to Volkmann (2007) the critical success factors for enterprise education are content and methods. Assessment plays a key role in both areas and should be viewed as an integral part of course design and as a key pillar of an effective teaching and learning strategy (Pittaway *et al.*, 2009). However the assessment of enterprise and entrepreneurship is complex in nature (Duval-Couetil, 2013) and embedding enterprise education in HEI presents challenges around expectation versus institutional process (Henry, 2013).

Strong assessment mechanisms are capable of determining what students know and don't know (Boston, 2002) and more specifically whether summative or formative in nature the function of assessment is to provide credible representation of student achievement (Boud and Associates, 2010) that is both challenging and fair (Fry *et al.*, 2009). The core limitation of all evaluation mechanisms however is that they do not, in themselves, bring improvements (Ramsden, 2003) and this can create tension with the objectives of enterprise education (Scott *et al.*, 2016).

When attempting to address the challenge of measuring, testing and evaluating entrepreneurial behaviour in students a collaborative approach is required (Smith and Paton, 2011) which ensures assessment is not constrained within inflexible outcome frameworks (Draycott and

Rae, 2010; Brennan *et al.*, 2005). With this in mind, according to Draycott *et al* the focus of assessment in enterprise education should take account of two key factors namely;

- 1) “The concept of enterprise education (its definition and execution) which defines the pedagogy leading to assessment”.
- 2) “The assessment of enterprise education: its challenges and how these can be overcome”.

In order to satisfy these principles effective assessment of enterprise education requires a clear link between learning outcomes and societal outcomes (Gibb, 2008). Lyons and Lyons (2002) suggest that focus should be placed on developing qualities which fall into 4 key categories; technical skills, management ability, entrepreneurship and personal maturity.

With this in mind traditional methods of assessing enterprise such as business plans, reports and business pitches are outdated and ineffective (Banta, 2007; Jones *et al.*, 2013). Forms of problem-based learning such as business challenges, and discovery learning such as working in real businesses have been found to be far more effective (Prince and Felder, 2006).

Tunstall and Lynch (2010) suggest that one way to ensure students are engaged in their own learning is to create immersive learning environments. Business games and simulations have the potential to produce better learning outcomes when compared directly to case studies (Thompson *et al.*, 2000; Gove, 2012). Gijbels *et al* (2005) however recognise that assessing more innovative learning forms can present additional challenges for the enterprise educator from both practical and compliance perspectives (Pittaway and Edwards, 2012).

In order for students to develop enterprising attitudes, aptitudes and behaviours what is fundamentally needed is an assessment grounded in industry that embraces the principles of self-directed learning (Tseng, 2013). This can be extremely impactful particularly when the learning takes places through interaction with the real business environment (Levie *et al.*, 2009). In this way the learners’ activities allow them to create meaning themselves.

The assessment of this learning should also be student centred to empower the individual to take ownership of their own goals, targets and performance through practice (Gibb, 2011). This means moving away from generic group assessments to a more flexible and tailored model with the student as co-creator (O’Donovan *et al.*, 2004). From this the role of assessment can then be to capture evidence of entrepreneurial activity rather than to constrain it. This will allow the student to set meaningful goals (Jones, 2011).

Fetters *et al.*, (2010) and Brush (2012) state that the most effective way to apply this approach is for universities to establish their own entrepreneurial network or ecosystem. This will provide a supportive environment which is sympathetic to enterprise and offers a range of internal and external entrepreneurial opportunities designed to encourage students to evolve and develop over time Aulet (2008).

The key output from the literature review is that an effective assessment framework for enterprise education must adopt and embed the principles of the Triadic Model of Entrepreneurial Learning (Rae, 2004), the Framework for Developing Entrepreneurial Effectiveness (QAA, 2018) and the recommendations relating to the assessment of enterprise proposed by Draycott *et al* (2011).

Approach and Methods

For this study a relativist position was taken which makes it possible to stimulate and capture the opinions and views of the sample in order to investigate their thoughts and perspectives (Creswell *et al.*, 2003). An emic approach was adopted which embraces the researcher's immersion in the subject area and facilitates the examination of how people view the world and the meaning they attach to it, (Kottack, 2006).

An inductive approach was used to capture the views and insights from a relevant sample. Induction seeks to identify patterns and develop theories from observation of reality (Collis and Hussey, 2009).

The strategy chosen for this study was action research. Action research is widely employed within a community of practice in order to facilitate reflection and bring about an improvement in their own practice and is particularly well suited to the education sector.

The study focussed on a single case and case studies can yield insight that could not be gathered by employing other approaches (Rowley, 2002).

A qualitative approach was chosen as it provided an opportunity to answer the "why" questions around the key issues (Castles, 2004).

Validity and reliability

A key limitation of qualitative research is that it is focussed on a particular social field and therefore the findings cannot be generalised to other settings (Pandey and Patnaik, 2014). The question of credibility has been addressed through the application of prolonged engagement with the subject area and the participants as proposed by Yin (2009). Purposive sampling was used for interviewee selection. The interviews were designed to capture a cross section of the experiences and insight of a team of experienced enterprise educators. A cross sectional study made it possible to overcome time constraints in the research process (Saunders *et al.*, 2012).

Data Collection and Analysis

The interviewees for this study were chosen because they possess the necessary experience and credentials to contribute meaningful insight to the subject being investigated. A sample size of 10 was deemed to be a sufficient sample to ensure saturation of themes (Guest *et al.*, 2006). Purposive sampling was used as a basis for interviewee selection as this allowed for the selection of specific people who would be expected to have reflected on the specific area being investigated whilst still reflecting diversity. Prior to inclusion in the sample a profile of each participant was sought in order to establish their credentials and suitability for inclusion in the study. The sample investigated was selected in order to obtain descriptive data and anecdotal evidence relating to their personal working environment. A bank of 10 open questions was created based on the key themes identified from the literature review. These were then used as a basis to conduct semi structured interviews. Using this format for the method of inquiry offered the flexibility for participants to expand on important areas (Castles, 2004) whilst recognising the researcher's close relationship with the subject (Gray, 2017). The option of employing structured interviews was rejected as it was felt that employing a rigorous set of

questions in a prescribed order would not obtain the desired quality and depth of anecdotal evidence.

All interviews for this study were carried out in line with the same interview protocol. These took place within the interviewee's place of work and lasted a maximum of 1 hour. Understanding was checked with all interviewees. The interviews were digitally recorded to capture maximum data and written notes were taken as a backup. Permission to do so was obtained from all interviewees prior to recording. All digital and physical research materials were stored securely. Prior to the interviews a pilot was undertaken and each question was assessed in advance by interviewing 2 academics who were not included in the sample. The pilot also confirmed the optimum time frame for the interview and allowed the questions to be refined in order to detect and avoid ambiguity or bias. Questions asked during the interview were a result of both pre-determined questioning and also arose from the responses given by the interviewee. Of the individuals approached all agreed to participate. Issues around both confidentiality and anonymity were discussed and addressed. Reassurances were given that readers could not identify individual interviewees from the study as all specific identifiers were removed with only the interviewee code being provided in the analysis.

The analytic method applied in this study is thematic analysis which provides a flexible and useful framework for analysing qualitative data, (Braun and Clarke, 2008). The aim of this project was to provide a detailed examination of how a particular staff cohort believes that assessment might influence practice and quality of teaching and learning within their business school. Having carried out a comprehensive review of the literature, coding was used to highlight the key themes which were observed from the research. From the sample of 10 enterprise educators each interviewee was allocated an individual identification code from EE1 to EE10 as follows;

Subject	Position	Subject Specialisms
EE1	Lecturer	enterprise, entrepreneurship, leadership, management
EE2	Lecturer	enterprise, entrepreneurship, leadership, management
EE3	Lecturer	enterprise, entrepreneurship, management, marketing
EE4	Lecturer	enterprise, entrepreneurship, management, marketing
EE5	Lecturer	enterprise, entrepreneurship, management, marketing, HR
EE6	Lecturer	enterprise, entrepreneurship, management
EE7	Lecturer	enterprise, entrepreneurship, innovation
EE8	Lecturer	enterprise, entrepreneurship, leadership, management
EE9	Lecturer	enterprise, entrepreneurship, leadership, management
EE10	Lecturer	enterprise, entrepreneurship, economics

The research interviews raised a number of questions and from the data obtained further reflection on the literature was carried out to ensure alignment between interview data and the literature and also to source potential solutions. From this the following key themes were identified;

THEME 1 - *What are the key aims of enterprise education?*

THEME 2 - *In this context what activities should we place emphasis on?*

THEME 3 - *What is the value in doing so?*

THEME 4 - *What are the barriers and challenges to teaching and assessing this activity?*

THEME 5 - *What might a solution look like?*

In the context of these themes the data were critically analysed in order to identify areas of agreement and conflict from the interviews and the literature as follows.

THEME 1 - What are the key aims of enterprise education?

- **EE1** - “A key aim of enterprise education must be to help students tap into their creativity and harness their natural talents. The academic theory is an important part of the learning process but even more important are the skills which we help the students develop which they can transfer to the marketplace.”
- **EE8** - “With the market being so competitive many of our students now see entrepreneurship as a good career path. The main objective of entrepreneurship courses is to provide a thorough introduction to the theory which underpins the entrepreneurial process as the foundation for successfully launching a new venture”.
- **EE9** - “Many students have no interest in starting a business and sometimes question the relevance of mimicking the start-up process. It can be a struggle to make them understand the essence of entrepreneurial behaviour which is identifying opportunities and putting useful ideas into practice”.

From the interviews there was universal agreement with Lyons and Lyons (2002) that encouraging the development of enterprising skills and behaviours lies at the heart of enterprise education.

It is however interesting to note that opinion was divided over the core focus of enterprise education. Whilst the importance of employability highlighted by Hermann *et al* (2008) was recognised by all, half of the subjects interviewed felt that the role of the enterprise educator is to develop the next generation of organisational leaders. This is in line with the thinking of Antoncic and Hisrich (2003). The remainder pointed to encouraging and supporting business start-up as the core aim as highlighted by Bridge *et al* (2010).

7 of the 10 subjects indicated that a key objective of the enterprise educator was to provide learning opportunities which embrace both theory and practice as proposed by Neck and Greene (2011). However there seemed to be no indication as to what the correct balance of theory and practical skills would be.

A recurring theme from the interviews was the need to develop student understanding of enterprise and its importance in the employment market (Westhead and Matlay, 2006) with 4 interviewees highlighting this as being an important outcome of enterprise education.

THEME 2 - In this context what activities should we place emphasis on?

- **EE1** - “There are literally hundreds of assessment instruments we could use here but we constantly use the same ones because they're safe and we need to tick the academic boxes. If someone starts an enterprise module and within that programme they actually start a business with all the activity that is involved then we should recognise that achievement from an academic point of view”.
- **EE3** - “One way to make assessment more relevant would be to place emphasis by means of academic credit on relevant entrepreneurial activities rather than class based tests. We talk all

the time about helping our students to adopt a more entrepreneurial mind-set but we expose them to enterprise and entrepreneurship in a classroom for 12 weeks and ask them to complete a few assessments that aren't particularly academic or very entrepreneurial".

- **EE4** - "Weak assessment just encourages students to basically re hash information they find online and does not encourage reflection or really show they have understood what we have been teaching. Students quite often don't get the importance of reflection or realise how important it is to their development. They are reflecting all the time but what we're trying to do with reflective journals and logs is to formalise the process and encourage the students to internalise it so it becomes something that they do instinctively."

Leading on from Theme 1 the point was raised by 4 subjects that an excessive focus on business start-up leads naturally to assessments which complement that approach but which have inherent flaws. The most common examples of this are the business plan or oral presentation or "pitch". The point was made on a number of occasions that the business plans the students produce look very much like an academic piece of work and at times bear little resemblance to what a business plan in the real world would look like. This supports the views of Matlay (2011).

When this issue was explored more deeply there was broad consensus that this creates potential barriers to engagement for students who have no desire to set up their own business. This, it was suggested, means they can struggle to see the relevance of some programmes to themselves. On numerous occasions during the interviews the concern was also raised that the importance of the intrapreneur were not being adequately reflected in line with Fayolle *et al* (2006).

All 10 interviewees agreed that poor assessment practice can undermine student performance. The majority of those interviewed also stated that assessments should be designed to encourage the students to actually apply what they have learned and put it into practice rather than simply to demonstrate what they have been taught as suggested by Neck and Greene (2011).

In line with Chang and Rieple (2013) 8 out of 10 of those interviewed demonstrated strong support in principal for assessments which encourage experiential learning and reflection. However an issue which was extracted from the interviews was that the depth of reflection from the students was often very shallow and frequently they missed key elements from the assessment.

THEME 3 - What is the value in doing so?

- **EE4** - "If we are thinking about assessment and what value we get from it then we have to ask ourselves what are we actually trying to achieve here? In order to add value for the student we need to decide if we're in the business of education or graduation"
- **EE5** - "From experience traditional institution focussed forms of assessment encourage the students to come up with very grounded ideas rather than stimulating creativity and at times I feel we don't challenge the students enough. More innovative forms of assessment can help here."

From the study the importance of student engagement was clearly identified. 4 interviewees indicated that to some extent how well the students do in assessment can often be down to how

engaged they are with the assessment itself. An interesting, exciting or unusual assessment can, it was felt, impact greatly on how well the students engage and grasp the learning as stated by Tunstall and Lynch (2010). There was however some disagreement as to the best approach for encouraging this engagement and opinion was divided in particular around the value of business games and simulations.

All interviewees stated that, when used well, assessments centred on oral pitches and presentations can help the student to develop communication skills. When this is carried out as a group exercise then, it was suggested, there are also opportunities to improve a range of meaningful and valuable skills as almost always the students experience a range of group working issues which they are able to reflect on and then work through. These entrepreneurial learning opportunities are aligned to the thinking of Lyons and Lyons (2002).

The study illustrates that whilst there is a huge range of accessible formative and summative assessment tools which could be applied enterprise education there is a clear reliance at UWS on a very limited number of traditional and grounded assessment mechanisms. There was agreement with O'Donovan *et al.*, (2004) that potentially more effective instruments such as individual presentations were, it was stated by 3 subjects, being foregone in place of mechanisms more suited to processing and marking large cohorts. The suggestion was also made by several participants that in order to improve this situation extra support and extra resources and the opportunity to take risks would have to be provided. It was clear that it was widely accepted that these extra resources would be challenging as stated by Draycott *et al.*, (2011).

Another recurring theme around current assessment practice was that it was generally felt that there is a lack of impact being made with only superficial improvements in the students' performance being noted over the course of a programme. The suggestion was made that the process of simply delivering an oral presentation is not, on its own, of significant benefit to the student. Their ability to present and to achieve a higher mark could be greatly enhanced with a stronger focus on teaching the actual skills and techniques required to deliver an effective oral presentation. These would include aspects such as timing, pacing, projecting confidence, researching the subject and good practice around effective use of presentation tools. Fayolle (2000) supports this type of effective learning.

6 out of 8 respondents highlighted the problem that whilst group assessments encourage team working and networking which is important in any organisation or business students were frequently observed putting minimal effort into the group project but were still able to pass the assessment and even share a very good grade due to the presence of other active members in their group. This is a clear example of the types of challenges highlighted by Gijbels *et al* (2005).

THEME 4 - What are the barriers and challenges to teaching and assessing this activity?

- **EE1** - "Sometimes I think we try to cover too many different things and don't spend enough time in key areas. We see from what the students' submit that at times they either haven't fully understood what we were trying to teach them or they haven't gone deep enough".
- **EE2** - "The system doesn't encourage us to take risks when it comes to important things like assessment. We know fully what the limitations are of the assessments we are using but we

use the big classes and the fact that the module descriptors are already written and can be difficult to change as an excuse to keep doing things the way we do them”.

- **EE8** - “Assessment is an important part of the process but so are the skills which we help the students develop which they can transfer to the marketplace. At times there is a tension between the two. The essence of enterprise education is applicability. It can be hard to pull off but what we teach must mimic the real world of business and prepare our students for it”.

Several interviewees made the point that unless the relevance, importance and benefits of enterprise are communicated effectively to the student then there is a danger that they will not see the value of it at all. There was general agreement that from this there is a risk that students may therefore not engage fully which from an assessment perspective can greatly reduce pass rates whilst also limiting the learning and development opportunity which enterprise offers. This view is shared by Draycott *et al* (2011).

From the study there was clear evidence of the type of institutional barriers highlighted by Henry (2013) and institutional agendas identified by Giacalone (2004). A recurring theme noted with all respondents was that whilst there was a strong desire to do some things differently it was felt that the volume of students being serviced and the associated processes virtually dictated the means by which students are being assessed. This creates a bias towards group assessment and also traditional mechanisms most notably the business plan, the oral pitch, the report and the reflective journal. A number of specific examples of the range of issues around these mechanisms were provided by the interview subjects.

Whilst there was clearly an opportunity for the enterprise team within UWS to influence and shape assessment the drive to do so was not evident in everyone who took part in the study. Several subjects stated that there was a tendency to accept the status quo as it was manageable. Half of those interviewed suggested that the assessment mechanisms selected are not chosen because they are closely aligned to the aims of the specific programme but because they are “tried and tested” and therefore known and less risky. This approach is unlikely to compliment the learning and development objectives of the QAA framework and could limit the student entrepreneurial learning experience.

THEME 5 - What might a solution look like?

- **EE2** - “From personal experience summative assessments don’t really focus on the students’ own development so don’t work well in enterprise education. Assessments really need to be formative in nature and should support learning”.
- **EE4** - “If we are seeking to embed an entrepreneurial mind-set within our students do we need every assessment to be specific to each module? In my view we need to adopt a more long term approach to teaching and assessment of enterprise and entrepreneurship. If we truly want students to fully embrace the potential benefits of being entrepreneurial then how can we realistically achieve this within the scope of a single module?”
- **EE5** - “It’s not really the assessment tools themselves that are at fault it’s how we’re using them in our modules. We could do better in terms of how we communicate what we are looking for to the students and if we can combine different forms of assessment and use them in different ways we could definitely provide opportunities for the student to get more from the learning experience”.

Whilst it was generally accepted that forms of assessment that are engaging for the student are to be encouraged there was disagreement over what form this should take. 4 subjects were aligned to the position on Tunstall and Lynch (2010) and Neck and Greene (2011) who support the case for using simulations and serious games as both a teaching and assessment tool. There was however some concern expressed by 4 respondents who suggested that there were often clear limitations with these tools.

The study highlights the key supporting role which assessment plays within enterprise education but there is also clear evidence that traditional methods of assessing enterprise are outdated and ineffective as stated by Banta (2007). In order for students to develop enterprising attitudes, aptitudes and behaviours what is fundamentally needed is an assessment rooted in industry which is relevant to the marketplace. This must be coupled with academic practice of which assessment is a critical pillar must itself demonstrate the entrepreneurial qualities it promotes.

7 interviewees agreed with Levie *et al* (2009) stating that assessments which involve real life experience with business such as internships should be more widely used as they offer a really valuable learning experience for the student which can lead to real employment opportunities further down the line. The remaining 3 subjects, whilst also recognising the value of work related learning felt that introducing individual assessments around internships would not be practical given the extremely high levels of student numbers which are experienced on a routine basis.

Whilst 2 of the interviewees disagreed, 8 out of 10 of those interviewed agreed that students should be assessed for relevant co-curricular activity. There was however strong support from all for the view that taking theory and combining it with practical case studies and visits to local businesses offers valuable opportunities to mix with real life entrepreneurs and successful managers which can bring the learning to life for the students. A recurring solution offered was to use traditional and accepted mainstream assessment instruments and apply them to activities outside the classroom in line with Neck (2011) which would be likely to see better educational outcomes if this approach to assessment was fully embraced.

The study seems to confirm the hypothesis of Jones *et al* (2013) that there is potentially a disconnect between work produced as an academic exercise rather than industry such as the business plan and in terms of relevance this raises real concerns for the enterprise educator, the enterprising graduate and the stakeholder.

Chang and Rieple (2013) discuss in more detail the type of barriers students face when delivering presentations, most notably feelings of stress, fear and anxiety linked to performing in front of teaching staff and peers but also identify that presentations when used effectively and supported can lead to very good outcomes around improved confidence, deep reflective learning and improved communication skills. These are potentially valuable outcomes.

Whilst 2 subjects dismissed the value of the reflective journal as a means of assessing enterprise 8 subjects agreed that if the personal reflection was to be more closely aligned to the students' activity and experience especially when using a real world project that this have more relevance and would produce better outcomes which supports the thinking of Scott *et al* (2016).

50% of interviewees felt that assessment should provide an opportunity to allow student development to be gauged over a longer period such as an academic year or through the course of a full Degree rather than the current stop-start approach to enterprise currently being widely used.

5 of the 10 interviewees felt that HEIs need to consider placing greater emphasis by means of academic credit on relevant co-curricular activities which demonstrate real entrepreneurial activity. This would require a shift of focus from mainly traditional enterprise education focussed on acquiring skills to an approach which also embraces the philosophy of entrepreneurial learning, an approach which would undoubtedly encounter barriers within the institution.

These key findings are summarised as follows;

Theme	Items	References
1. What are the key aims of enterprise education?	“Tap into creativity”, “provide foundation for entrepreneurship”, “develop understanding of entrepreneurial behaviour”	(Lyons and Lyons, 2002), (Hermann <i>et al.</i> , 2008), (Westhead and Matlay, 2006) (Fayolle <i>et al.</i> , 2006).
2. In this context what activities should we place emphasis on?	“Venture creation”, “entrepreneurial activity”, “personal reflection”	(Bridge <i>et al.</i> , 2010), (Chang and Rieple, 2013)
3. What is the value in doing so?	“Provide a meaningful education”, “stimulate creativity”	(Antoncic and Hisrich, 2003), (Matlay, 2011).
4. What are the barriers and challenges to teaching and assessing this activity?	“Time pressures”, “generalised approach to education”, “aversion to risk in education”, “need to be relevant to industry”	(Banta, 2007), (Levie <i>et al.</i> , 2009) (Jones <i>et al.</i> , 2013), (Penaluna and Thompson, 2016).
5. What might a solution look like?	“Formative approach”, “long term approach”, “more creative approaches”	(Tunstall and Lynch, 2010), (Neck and Greene, 2011).

Conclusions

The aim of this study was to provide a detailed examination of how a particular staff cohort believes that assessment might influence practice and quality within their business school. This was achieved firstly by critically appraising and evaluating relevant literature relating to the assessment of enterprise within Higher Education. Primary research was then conducted to investigate and evaluate the views of a team of 10 experienced enterprise educators to determine what they consider to be the key factors in the assessment of enterprise education. The findings of the study were then analysed and recommendations proposed for an approach to assessment within enterprise education which effectively supports and evaluates the entrepreneurial development of students. This research has value as it contributes to the existing knowledge base within enterprise education whilst adding to the debate around the relevance and effectiveness of the current approach to assessment. This will be of interest to enterprise educators and decision makers within this field seeking to develop an understanding of how assessment can be used to support the aims of enterprise education and entrepreneurial learning.

Constraints and Limitations

The scope of this work is limited as it concentrates on a single case study. In addition the time horizon adopts a cross sectional approach therefore removing the opportunity to observe changes over time within the field of study. These limitations can be addressed in future research.

Furthermore the qualitative approach focuses on a specific social field and therefore the findings cannot be generalised to other settings.

Recommendations

From the study there is consensus that as enterprise educators we are preoccupied with making enterprise fit into a rigid academic framework. There was also agreement that this is unhelpful in terms of the core aims of entrepreneurial learning and that traditional methods of assessing enterprise and measuring impact are not effective (Sanchez, 2013; Scott *et al.*, 2016). Therefore in order to achieve better academic and employability outcomes a new approach to assessment leading to more effective assessment architecture is required. This must be capable of providing academic milestones whilst also imparting the desired enterprising knowledge and skills. Whilst it is recognised this approach will create challenges the following recommendations for assessment within the context of enterprise education are proposed.

1. Enterprise education should focus on the key areas of enterprise awareness, entrepreneurial mind-set, entrepreneurial capability, and entrepreneurial effectiveness (QAA, 2018). This approach encourages the student to apply practical theories of entrepreneurial action such as problem solving, creativity, innovation, risk management, resilience, opportunity spotting, and networking (Bolton and Thompson, 2000; Burns, 2013).
2. In order to create a flexible, meaningful and relevant framework of assessment which is fit for purpose in the 21st Century enterprise educators must adopt and embed the key principles of Triadic Model of Entrepreneurial Learning which seeks to create critical learning events which lead to transformative learning (Rae, 2004).
3. Assessment in the context of enterprise education should not be constrained by a single module, programme, faculty or school. The teaching and assessment of enterprise should instead sit across the curriculum creating opportunities to collaborate such as joint assessment (Smith and Paton, 2011).
4. Assessment in enterprise education should focus on gathering clear evidence of the practical application of theory whilst assessing the development of enterprising skills and behaviours valued by industry (Herrmann *et al.*, 2008).
5. In line with the view of Brush (2011) education should be student centered and students should be directly involved in the construction of their own assessments. Such co-creation allows the student to take ownership of their own learning and identify opportunities for personal development which are meaningful for them personally (Jones, 2011).
6. Assessment should adopt a longitudinal approach whereby data, based on observation of the student, is gathered over an extended period of time. This will undoubtedly create practical challenges for the enterprise educator (Draycott *et al.*, 2011) however in this way it will be possible to recognise and assess meaningful development over the longer term.

7. Assessment should not be confined to the classroom and should take account of relevant curricular and co-curricular enterprising activities such as working with real businesses (Prince and Felder, 2006) which support student development in the key areas of; enterprise awareness, entrepreneurial mind-set, entrepreneurial capability, and entrepreneurial effectiveness (QAA, 2018).

8. Enterprise assessment can and should be tailored to suit the students' individual entrepreneurial capacity, capability and potential and subsequent development needs. It should facilitate meaningful reflection and goal setting based upon that reflection whilst encouraging a constant cyclical approach to entrepreneurial learning in line with the theories of Brennan *et al* (2005).

9. Whilst there is considerable research activity focussing on the academic areas of enterprise education and assessment in Higher Education, the area of assessment in enterprise education within HEIs is still under researched. There is therefore a need to determine the nature and extent of assessment mechanisms, practices and pedagogical approaches employed within other HEI's in Scotland. Further research is also recommended to test the recommendations presented within this research project. Limitations in this study can also be addressed in future research which can include other HEIs and, if appropriate, longitudinal study of these cases.

10. Further research is also recommended around the effectiveness of practical assessment instruments which adopt this approach. The aim of this would be to establish to what degree these instruments support the delivery of effective enterprise education.

Recommendations - Practical Examples

The challenge for the enterprise educator is to develop flexible assessment instruments which are capable of satisfying the aims of the student, the institution and the employer. To this end it is recognised that there are any number of ways in which these recommendations could be implemented however a summary of 3 examples of assessment instruments which apply this approach and have already been operationalised at UWS have been provided here.

a. Professional Development Experience Module

This Module contains no prescribed assignment and instead the individual student selects a meaningful practical project of their own choosing which, if deemed to be suitable, they then undertake and submit a portfolio of work around this. The portfolio is then mapped to generic assessment criteria and here the elements of personal choice and flexibility ensure high levels of engagement.

b. Business in Action Module

The assessment for this Module centres around the SimVenture business simulation. Students undertake the simulation and then write a report around the learning they have gained from the experience. The key aspect here is that whilst a grounded instrument is used for the actual submission (the report) the assessment centres around gamification (the simulation) which, the research suggests, is capable of delivering heightened student engagement levels whilst also providing clear opportunities for entrepreneurial learning.

c. **Business Acceleration Module**

This optional Module is designed for students who are intending to start their own business. In this Module students undertake a series of very practical sessions aimed at helping them develop their own business idea and their enterprising skills such as; idea generation, business modelling and product development. The assessment instrument is a feasibility study for their own business. This Module is tailored to each individual students' needs and is effectively providing academic credit for their own business start-up.

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